AMERICAN INTELLIGENCE.

Enlargement and Disorganization of the Left Kidney. By MASON L. WEEMS, M. D. of Washington City.—On the 15th of July, 1834, I was applied to for advice by Mrs. Manley, aged about thirty-five, a widow, and mother of two children. She informed me, that between three and four years since, she had suffered two or three months from intermittent fever, during the continuance of which, a tumour made its appearance in her left side, which was pronounced to be an enlarged spleen by several physicians who had seen it; that it had increased but little since its appearance, and as she had experienced no inconvenience from it, except its weight, and a slight pain in that side whenever she took much exercise; she had taken nothing for it. She now only complained of the unsightly appearance of the tumour, and of a dread, (excited by others,) that if neglected, it might ultimately become dangerous.

On examining the abdomen, I found a firm and inelastic tumour, occupying the position of an enlarged spleen, but differing from it, in being much more prominent below the ribs, than immediately under them. The fingers also, could be more readily passed between it and the ribs, than could have been expected with a spleen of that size. It extended forward to the umbilicus, and downward a little into the left iliac region.

Believing the tumour to be an enlarged spleen, I prescribed accordingly, but the medicine was not taken, as the patient afterwards concluded to do nothing for the disease unless she experienced more inconvenience from it.

I heard nothing more from this patient until the 23d of August, when I was called to attend her for a severe attack of dysentery, from which she was, in a few days, convalescent. From imprudent exposure she experienced a second, and again, a third attack of the disease, which continued, (though gradually moderating in degree,) until near her death. On the 4th of September, I invited Dr. Hall to visit the case, which he did, and afterwards frequently attended with me. He expressed a doubt as to the tumour being an enlargement of the spleen, from a consideration of its peculiarities. But as there was not, and never had been, a symptom of an affection of any other organ, he could not express a positive opinion as to its nature. The colon was at this time very much thickened and contracted, resembling to the touch a large cord. It could be traced by the fingers from its origin to its sigmoid flexure, and where it passed in front of the tumour, it was evident to the eye. It was extremely sensitive to the touch, the slightest pressure giving pain. The colon gradually improved in condition, so that by the middle of September it was neither perceptible to the eye nor touch; it had, also, ceased to be painful or tender. By the same time the tenesmus and other symptoms of dysentery had disappeared, yet the patient continued to sink.

In consequence of the straining which attended the dysentery, the tumour soon became the seat of pain, which continued to increase. It was, also, more prominent and pointed, and finally became soft and elastic to the touch.

The fever which attended the dysentery soon assumed the hectic form, and as she took but little nourishment, she was speedily emaciated to an extent seldom witnessed. Her pulse became as small and as weak as that of an infant, and her death was hourly expected. Yet in this condition she continued to exist two weeks longer, and expired about the first of October.

The autopsy was performed by Dr. Hall and myself, within six hours after death. The body was extremely emaciated. Externally there was nothing remarkable, except the tumour in the neck, which was a thin membranous sac, distended with water of a globular form, and about an inch in diameter.

Internally we found the tumour, (which was slightly adherent to the anterior abdominal parietes,) to be the left kidney, increased to the weight of seven pounds. It was totally disorganized; its cortical portion resembling in colour and consistence an equal mixture of blood and brains, though at some points it presented a granular appearance, which might more properly be compared to a mixture of saw-dust and blood. The tubular portion was a little more consistent, and hence the pelvis was recognised.

The ureter was natural. The capsule, (which is now in the possession of Dr. Hall,) was dense, strong, and very much thickened. The colon was somewhat thickened, but in other respects healthy in appearance. The spleen and the rest of the viscera were perfectly healthy.

The most remarkable circumstance in this case, was the total absence, (from the first appearance of the tumour until death,) of every symptom, direct and indirect, which could have caused a suspicion of disease of the kidney. I am aware, that extensive disease may exist in the kidneys without the usual symptoms. But I have seen no case on record in which there did not exist some symptoms indicative of the disease. This patient evidently sunk under hectic fever, caused by the disease in the kidney, for the dysentery was cured sometime before death.

The duration of the disease is also remarkable, and it is probable the patient would have lived much longer had it not been accelerated by the straining which attended the dysentery.

A Case of successful Amputation of the Thigh affected with Traumatic Mortification, where Gangrene had extended beyond the line of separation made with the knife and saw. By Paul F. Eve, Professor of Surgery in the Medical College of Georgia.—In one of the late numbers of the American Journal of the Medical Sciences, notice is taken of a case of amputation performed by Lisfranc, and published in a late Parisian periodical, from which it appears that not only did mortification, the cause of the operation, continue to spread up the limb, but that even the incisions were made through a portion of the dead parts. From the success attending this case, the distinguished operator and surgeon of La Pitié has ventured to recommend the practice.

At the request of Dr. Y. B. Olive, I visited a patient of his and Dr. R. Williams, on the 1st of January, 1835, who about two weeks before had received a very serious accident. While driving a loaded wagon his horses became frightened, and threw him in such a manner, as to entangle his right leg in one of the trace chains. After being dragged some distance on his back, the wagon wheel struck a tree—bones were heard to break, and he was then released from his perilous situation. Upon examination, the driver, a stout, muscular black man, aged about 40 years, was found to have received several severe contusions and wounds, with a double fracture of both bones of the right leg—one near the ankle and the other just below the knee. The limb was placed in splints and the case seemed to promise a favourable termination for a week or ten days, when mortification commenced, and from delay in procuring instruments, &c. (the patient being twenty-two miles from the city,) it had progressed to the following extent on the 1st of January—the day on which the operation was performed. The right foot and leg entirely sphacelated, knee of same side gangrenous, right thigh infiltrated with serum, and under or posterior surface much thickened from position, with *distinct crepitation* over the anterior surface, extending as high as Poupart's ligament. The pulse was small, wiry and feeble, beating about one hundred in the minute; tongue furred, whitish; courage good—patient willing to submit to any thing that promised relief.

Besides these symptoms, there were severe contused wounds, one on the small of the back, some on the left limb, but which were now in a healing state; and I learnt, moreover, after the operation, that the patient had spit a little blood since the accident. Amputation at the hip-joint being out of the question from the patient's weakness, it was decided in consultation, that the removal of the right limb near the trochanters would be giving the best, if not the only possible chance for his recovery. After pressure was made upon the vessels, an incision in a longitudinal direction was made on the anterior face of the thigh, when oily serum and blood flowed out, from which we felt encouraged, and amputation was performed in the ordinary manner, as already described in a preceding number of your Journal. The patient being supported with laudanum, brandy and water, bore the operation much better than was expected. The stump presented a very unfavourable aspect; the skin of very unequal thickness, owing to the deposition and thickening from position, the muscles were very dark, the arteries and the cellular tissue, particularly along the course of the absorbents, blackish, and from the hollow of the divided thigh bone, the medullary substance protruded of a dark purple colour. On examining the parts removed, the knee-joint was found disorganized—matter extending in the cellular tissue above it; and upon removing the projecting medullary substance from the os femoris, which resembled that of the corresponding part of the stump just noticed, *pus* made its appearance. Under common dressing, and contrary to all expectations, the patient entirely recovered in a month or six weeks, to which he is exclusively indebted, (and here certainly it was more creditable to heal the stump than to perform the operation,) to his attending physicians, particularly to Dr. Olive, now of Mississippi.

I have presented you the fact, adding another case, and confirming the practice ventured on by Lisfranc, viz.—that amputation may not only be performed during the progress of *traumatic* mortification in a limb, at first insisted upon by Larrey, and subsequently by Hennen, Guthrie and other distinguished military, and I may now add, civil surgeons; but that the same operation has terminated favourably, even when gangrenous inflammation has extended beyond the line of separation.

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Sugar poisoned with Oxide of Lead. By C. T. Jackson, M. D.—During the past winter and spring season, a number of persons said to amount to upwards of one hundred in number, in the town of Calais, Maine, have suffered from a disease of the bowels of a violent character, resembling *colica pictonum* of the severest kind. Three of the individuals have died in consequence of this disease, after a protracted and most distressing illness; several others are still in a very critical state, and have suffered more or less from paralysis of the extremities. Through the kindness of one of the sufferers, I have been favoured with the names of forty-eight individuals who are still sick with this disease.

The cause of this distressing malady has been carefully examined into by Dr. S. S. Whipple of Calais, and through his exertions suspicions were finally fixed upon the sugar which had been used in the families of those who suffered; and it was ascertained that the only article of which they had all partaken, was sugar obtained from one importing house at St. Stephens, N. B. It was furthermore observed, that those persons in the families where the disease prevailed, who did not make use of sugar, escaped altogether, while those who indulged most freely in its use suffered the most severely. Thus the chain of evidence was complete against the sugar, and the disease supposed at first to be an epidemic, is in the end proved to arise from poison. Five or six of those persons who were subject to this colic, set out for Boston for the purpose of obtaining medical advice; one, a young lady by the name of Darling, died on board the packet, under the most distressing symptoms, attended with paralysis of the limbs. The other passengers are undergoing medical treatment in this city, and still bear the marks of great suffering and extreme emaciation, the

countenance in every one whom I have seen, showing that peculiar expression which accompanies disease of the abdominal viscera.

I have minutely examined four of the sufferers, and from them have learned the foregoing particulars. It appears that the sugar was brought from Barbadoes late last autumn, and was sold by an importer at St. Stephens, who supplied the trade at Calais. It was also ascertained that the captain of the ship who brought out this sugar, had a small adventure of the same kind, and that he, and those to whom he sold his sugar, suffered from this disease.

After collecting the above evidence against the suspected sugar, it was thought advisable to make a chemical analysis of it. Four parcels, consisting of about a pound each, were put in my hands by Mr. Lee and Captain Rodgers, with a request that I should make an analysis of each of them, and ascertain positively whether they contained poison or not.

The parcels were marked Nos. 1, 2, 3 and 4, and were subjected to analysis in the order of their numbers.

My suspicions and those of Dr. Whipple were fixed on oxide of lead as the poisonous ingredient, and the results of the analysis prove that this opinion was well founded.

They also prove, that a small quantity of this poison, when taken daily, although no immediate disturbance is felt, produces great derangement of the system, and induces a most dangerous and painful disease, which lingers long in the constitution after the use of the deleterious article has been suspended. How often do people exclaim that certain articles are not poisonous, because they have sometimes partaken of them with impunity, when we know that if persevered in, disease and death must be the consequence of their temerity!

I annex the subjoined extract from my laboratory notes.

June 7th, 1835.—Four parcels of brown sugar were handed to me by Captain Rodgers and Mr. Thomas Lee for chemical analysis. They are marked Nos. 1, 2, 3 and 4, and weigh about a pound each. No. 1 is evidently from a different lot from the other samples. It is of a lighter yellow colour, and coarse grained; while the others are much darker and smaller grained, and in lumps of a still deeper colour. There is nothing peculiar in the taste or appearance of any of the samples, that would cause any suspicion to be raised against the quality of the sugar.

Analysis.—The object of the analysis is to determine if the sugar contains any oxide or salt of lead or copper.

Five hundred grains of the sugar No. 1, burned to cinders in a platina capsule, the cinders crushed to powder in a Wedgewood mortar, and then burned to ashes in the capsule. The ashes was placed in a green glass flask, and digested with nitric acid, and evaporated to dryness; then treated with water and filtered. The filtered solution was placed in a flask, and a current of sulphuretted and hydrogen gas passed through it until the liquor was saturated. No precipitate took place, from which it will appear that this sample does *not* contain any lead or copper.

I have since learned that this sugar was sent for the purpose of ascertaining if it were free from poison, and was not of the kind used by the family at the time they suffered from the disease.

Five hundred grains of No. 2, which came from the house of Mr. Lee, was treated exactly as No. 1; and when the sulphuretted hydrogen gas was passed through it, a copious precipitate of sulphuret of lead took place, which being collected on a filter, washed, dried and weighed, amounted to 1.6 grains; equal to 1.38 grains metallic lead, equal to 2.337 grains oxide of lead. This will give nearly 38 grains of oxide of lead to the pound of sugar.

Five hundred grains of No. 3, treated in like manner, gave a precipitate of sulphuret of lead, the weight of which is precisely the same as that obtained from No. 2.

No. 4, sugar from Mr. Darling's family. Five hundred grains treated like

No. 1, gave, when sulphuretted hydrogen gas was passed through it, sulphuret of lead in weight equal to that from No. 2. The sulphuret of lead obtained from Nos. 2 and 4 was reduced before the blowpipe to metallic lead. A portion of each of the precipitates was examined by tests for copper, and none discovered.

The lead in this sugar may be either in the state of acetate, malate, or saccharate of the oxide of lead, the sugar combining with it so as to form a chemical combination. How this sugar became contaminated with lead, I am unable to say. There is no suspicion of criminal design attached to any one, and it is probable that leaden reservoirs were used for the syrup, on account of the comparative cheapness of the metal, and that the free acids in the juice of the cane corroded the lead, and thus produced the poison, which crystallized in combination with the sugar. The dreadful effects of this poison should by all means reach the sugar planters, who distribute so noxious an article to the people of many countries, and must produce consequences at which humanity shudders. If the planters continue to manufacture this poisonous compound, and send it abroad regardless of the consequences, after they learn how much suffering it has caused, (which I am not willing to suppose they will do,) they will become criminal in the eye of British law, and liable to the severest penalties.

Indeed, we may feel assured, that as soon as they know the effects of their sugar, they will immediately examine into the source from whence the poison was derived, and prevent a continuance of the evil. Their own *interest* would cause this to be done, even if they were not impelled by higher motives; for their sugar would soon have a bad reputation, which would destroy its sale in the market. The researches into the cause of this disease, eminently show the advantage of rational medicine over empyricism, for the empyric would never have traced the disease to its remote cause by a connected mode of research, and consequently would have been unable to learn the cause of the malady and its method of cure. The symptoms in the cases all pointed to lead as their cause, and chemical analysis has confirmed the truth of this opinion. The cause is thus found out and removed; and rational medical treatment will soon restore the surviving sufferers to health.

It is surprising that *colica pectonum* is not a more frequent disease than it is, considering the numerous applications of lead to domestic use. Indeed, I have several times been able to trace the origin of this disease to the use either of leaden reservoirs for water, or leaden suction tubes in wells, where the water was charged with carbonic acid. Such wells are common in Boston, and I have several times been called to witness the effects of water charged with this gas, on lead pipe, which had been corroded entirely through, in the course of two years after it was placed in the well. Whenever water contains carbonic acid, lead suction pipe should be carefully avoided, and block tin substituted in its place; for lead is not only soon destroyed by such water, but a dangerous poison is produced, capable of slowly undermining the most vigorous constitution.—*Medical Magazine, June 15th,* 1835.

Physiology of the Schneiderian Membrane. By B. F. Wing, M. D.—The following experiments, which can be easily repeated by any one disposed to try them, will show that many sensations which are usually referred to the tongue, are in reality perceptions of the pituitary membrane.

Experiment 1.—A student of the profession consented to become a subject for the trial of his taste in discriminating medicinal substances. He was accordingly blindfolded, and his nose closed. In this condition he received a small quantity of tinct. cinchonæ, (its flavour being particularly offensive to him,) he immediately declared it to be bitter, and supposed it to be laudanum. His disappointment on being put in the possession of his senses can easily be conceived.

Experiment 2.—The subject of the first experiment was again desirous of

exerting his power of discriminating between tastes. After being prepared as above stated, a solution of sugar was used, its sweetness was readily discovered, but in its peculiar flavour he was again disappointed.

Experiment 3.—Was tried upon a person entirely ignorant of its object. Powdered columbo was introduced into the mouth of the individual after he was prepared in the usual manner; its bitterness was perceived. Of its peculiar qualities he was an incompetent judge.

A similar experiment was tried with the tinct. assafœtida; a burning sensation was perceived, which is common to all spirituous preparations; but its peculiar and strong flavour he could not detect.

Many other experiments were tried without differing in their result.

No one who will take the trouble to repeat experiments upon this subject, will hesitate to refer flavorous sensations to the pituitary membrane, yet he will still claim the possession of a sense of taste, though it is much more limited in its range than has usually been supposed. Thus it is the province of the tongue to perceive bitter and sweet, which are real tastes, while no other organs, however sensible to mechanical impressions, can perceive these properties.

Let us examine the relation existing between this and other organs, or the power this organ, when affected, possesses of producing in remote parts, similar sensations and affections, modified according to their organization and function.

The following experiments will show our liability to consider some prominent organs as *primarily* affected; whereas they are only called upon to sympathize in the general affection produced by an impression first made upon some part entirely overlooked.

Experiment 4.—This was tried to ascertain the susceptibility of the individual, (the subject of the experiment,) to the action of tobacco, as it is commonly used in the form of cigars. In thirty minutes after having commenced smoking, slight nausea was felt; in forty, vomiting supervened, and in fifty, the vomiting and other effects usually attendant upon the use of tobacco, increased to such a degree, that its use was suspended. It required several hours to restore the experimenter to his usual state.

Experiment 5.—This experiment was tried to ascertain the importance of the Schneiderian membrane in producing the effects of tobacco, either of a pleasant or an opposite character. It was tried upon the same individual, after having closed his nose carefully, so that no current of air could pass through it. The substance of which the cigars were composed could not be detected by the individual, when thus prepared, without the aid of other senses than that of taste. After smoking one hour, slight burning of the fauces was the only uncommon sensation perceived. At the expiration of an hour and a quarter, very gentle emesis took place, unaccompanied by any nausea or lassitude, removing the burning mentioned above. The experiment was continued one hour and fifty-five minutes without any further effect. On removal of the bandage, the person was immediately made sensible of the substance he had used.

Experiment 6.—A strong decoction of tobacco was kept warm over a dish of ignited charcoal, and an individual inhaled the vapour through his mouth, having previously secured his nose, one hour and thirty minutes without any inconvenience.

The same experiment was tried, differing only by an exposure of this membrane. In twenty minutes nausea was produced, followed soon by vomiting.

Substance applied immediately to the pituitary membrane, sometimes occasion symptoms of grave disease.

A case was related to me by a distinguished physician, where a partial paralysis of the organs of articulation was occasioned by the use of *snuff*. These symptoms excited much anxiety until the real cause of them was discovered. The habit, however, had become so strong, that the person preferred an impediment to his speech to a deprivation of his accustomed stimulus. In a second case, the physician was consulted for general tremor and paroxysms of violent

palpitation of the heart. After considerable investigation, the cause of these affections was found also to exist in the inordinate use of snuff. Its use was immediately abandoned, and the symptoms very readily subsided.

Ought not this membrane to deserve more consideration as the avenue through which the causes of disease make their attack? Its situation necessarily exposes it, in a peculiar manner, to all causes that are conveyed through the medium of the atmosphere.

In many instances, where the exposure to exciting causes is very brief and their effect sudden, is it not more rational to suppose that they affect primarily this nervous membrane, rather than that they are admitted through the skin, where, to say the least, absorption is slow, if the cuticle is perfect, or through the lungs, or stomach?

Dr. Good mentions a case where typhus was communicated by smelling a rose used to decorate the dead.

Persons in apparent health, passing through diseased districts, have received disease.

Cases have sometimes occurred when patients have even complained of the first effects of disease being manifested in this membrane.

A fisherman, apparently well, on landing from a very healthy voyage, passed with his companions, in the night, a house in which a number of individuals were sick, without his knowledge; he alone perceived an unpleasant odour arising from it, of which he spoke to his companions. He soon complained of nausea and oppression at the stomach. From this time he grew sick, and finally died of the disease existing in the house which he passed.

A person having the superintendence of a dissecting room, in which an attempt was made to preserve a number of bodies for future use, was necessarily occasionally exposed for a few minutes, to the unpleasant odour arising from their partial decomposition. In this individual's constitution there was a predisposition to intermittent. In almost every instance of exposure, however short, a chill and fever would be the consequence, although days would pass, unless thus exposed, without any indication of disease.

If it is established, that deleterious influences upon the economy are produced through the medium of this membrane, it is evident that it will afford an opportunity of applying means for counteracting disease.

In some cases this part remains quite sensible, while others are in a measure torpid.

Sometimes we can apply medicines to this membrane, when all other avenues to the introduction of remedial agents are partially closed.

In syncope it has been an almost universal practice to stimulate the pituitary membrane and arouse the general system through its agency.

Stimulants when applied in equal quantities to this part, are much more efficient than when received into the stomach.

In coma the practice has been attended with some success.

I will not attempt to enumerate the cases in which this practice may be beneficial, or the medicine suitable for use. If such practice is found practicable, the good sense of each individual of this society will decide these points.—*Medical Magazine, June 15th*, 1835.

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Influence of Various Employments on Health.—Dr. E. Bartlett, who is engaged in preparing an article on this subject, for the American Cyclopedia, is desirous of obtaining additional information relative to the health and longevity of the slave population of our southern states, especially of those engaged in the culture of rice. Information is also desired respecting the diseases, &c. of the workmen in the western lead mines. Our correspondents who are in possession of any interesting facts relative to these subjects, will assist in the advancement of science, and confer a favour on us, by communicating them to us. Due acknowledgement will be made of the sources from whence the facts made use of are derived.

New Medical School in Cincinnati.—The recent attempt of a highly respectable portion of the medical profession of Ohio to reörganize and reform the Medical College of that state, not having resulted satisfactorily, the Board of Trustees of Cincinnati College, the corporate powers of which College are those of an University, have instituted and appointed a Medical Faculty. The session, it is announced, will open on the last Monday of October, and continue to the end of February.

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Medical College of Louisiana.—A Medical School was instituted last autumn in New Orleans, with the above title, and it has since been endowed by the state legislature with corporate previleges. We have before us the introductory lectures of Dr. Edward H. Barton, Professor of Materia Medica, Therapeutics, and Hygiene, and Dr. Thomas Hunt, Professor of Anatomy; but have not yet received a list of the faculty, or the regulations of the school.

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Medical College of Ohio.—At the commencement, held February 28th, 1835, the Degree of Doctor of Medicine was conferred on 26 gentlemen.

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Dunglison's General Therapeutics.—Messrs. Carey, Lea & Blanchard have in press a treatise on General Therapeutics, by Professor Dunglison. Such a work is much wanted, and the talents and extensive acquirements of the author justify the confident expectation that this want will be well supplied.

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Dr. Clark's Treatise on Pulmonary Consumption.—This highly interesting and important work is in the press of Messrs. Carey, Lea & Blanchard, and will be shortly published. It will be printed from the second edition, which has been rewritten and considerably enlarged, and also somewhat altered in its plan, so as to suit it better to the public as well as the medical reader.

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White's improved Stomach Pump, Cupping Apparatus, and Breast Pump.—This apparatus, which has been exhibited to us by the proprietors, appears to be well calculated to fulfil the purposes for which it is designed. It is put up in a very portable form, and the cost is moderate.